

STIC Biotechnology Systems Branch

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/507,140
Source: PC/10
Date Processed by STIC: 12/8/05

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) **INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
- 2) **TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.2.2 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>), EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):
U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/24/05

Raw Sequence Listing Error Summary

ERROR DETECTED
SUGGESTED CORRECTION

 SERIAL NUMBER: 10/507,140

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1 Wrapped Nucleics Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."

2 Invalid Line Length The rules require that a line **not exceed 72 characters** in length. This includes white spaces.

3 Misaligned Amino Numbering The numbering under each 5th amino acid is misaligned. **Do not use tab codes between numbers; use space characters, instead.**

4 Non-ASCII The submitted file was **not saved in ASCII(DOS) text**, as required by the Sequence Rules. **Please ensure your subsequent submission is saved in ASCII text.**

5 Variable Length Sequence(s) _____ contain n's or Xaa's representing more than one residue. **Per Sequence Rules, each n or Xaa can only represent a single residue.** Please present the **maximum** number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.

6 PatentIn 2.0 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. **This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.**

7 Skipped Sequences (OLD RULES) Sequence(s) _____ missing. If intentional, please insert the following lines for **each** skipped sequence:
 (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
 (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

 Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.

8 Skipped Sequences (NEW RULES) Sequence(s) _____ missing. If intentional, please insert the following lines for **each** skipped sequence.
 <210> sequence id number
 <400> sequence id number
 000

9 Use of n's or Xaa's (NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
 Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
 In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

10 Invalid <213> Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence

11 Use of <220> Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." **Please explain source of genetic material in <220> to <223> section.**
 (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)

12 PatentIn 2.0 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

13 Misuse of n/Xaa "n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid



PCT

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/507,140

DATE: 12/08/2005
TIME: 10:59:19

Input Set : E:\seq_listing.txt
Output Set: N:\CRF4\12082005\J507140.raw

```

3 <110> APPLICANT: NERI, Dario
4      MELKKO, Samu
6 <120> TITLE OF INVENTION: Encoded Self-Assembling Chemical Libraries (Esachel)
8 <130> FILE REFERENCE: PUS-E005-105B
10 <140> CURRENT APPLICATION NUMBER: 10/507,140
C--> 11 <141> CURRENT FILING DATE: 2004-09-07
13 <150> PRIOR APPLICATION NUMBER: PCT/EP02/04153
14 <151> PRIOR FILING DATE: 2002-03-08
16 <160> NUMBER OF SEQ ID NOS: 28
18 <170> SOFTWARE: PatentIn version 3.3
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 60
22 <212> TYPE: DNA
23 <213> ORGANISM: Artificial
25 <220> FEATURE:
26 <223> OTHER INFORMATION: Primer L19VH_Eco_fo
28 <400> SEQUENCE: 1
29 tttcacacag aattcattaa agaggagaaa ttaactatgg aggtgcagct gttggagtct      60
32 <210> SEQ ID NO: 2
33 <211> LENGTH: 66
34 <212> TYPE: DNA
35 <213> ORGANISM: Artificial
37 <220> FEATURE:
38 <223> OTHER INFORMATION: Primer L19VH_Hind_ba
40 <400> SEQUENCE: 2
41 tcaatctgat taagcttagt gatggtgatg gtgatgacat ccaccactcg agacggtgac      60
43 cagggt
46 <210> SEQ ID NO: 3
47 <211> LENGTH: 63
48 <212> TYPE: DNA
49 <213> ORGANISM: Artificial
51 <220> FEATURE:
52 <223> OTHER INFORMATION: Primer L19VL_Eco_fo
54 <400> SEQUENCE: 3
55 tttcacacag aattcattaa agaggagaaa ttaactatgg aaattgttt gacgcagtct      60
57 cca
58 <210> SEQ ID NO: 4
59 <211> LENGTH: 69
60 <212> TYPE: DNA
63 <213> ORGANISM: Artificial
65 <220> FEATURE:
66 <223> OTHER INFORMATION: Primer L19VL_Hind_ba
68 <400> SEQUENCE: 4

```

*Does Not Comply
connected Diskette Needed*

JN 2-4

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/507,140

DATE: 12/08/2005
TIME: 10:59:19

Input Set : E:\seq_listing.txt
Output Set: N:\CRF4\12082005\J507140.raw

```

69 tcaatctgat taagcttagt gatggtgatg gtgatgacat ccacccttga tttccacctt      60
71 ggtcccttg                                         69
74 <210> SEQ ID NO: 5
75 <211> LENGTH: 60
76 <212> TYPE: DNA
77 <213> ORGANISM: Artificial
79 <220> FEATURE:
80 <223> OTHER INFORMATION: Primer HH10VH_Eco_fo
82 <400> SEQUENCE: 5
83 tttcacacag aattcattaa agaggagaaa ttaactatgg aggtgaagct gcagcagtct      60
86 <210> SEQ ID NO: 6
87 <211> LENGTH: 66
88 <212> TYPE: DNA
89 <213> ORGANISM: Artificial
91 <220> FEATURE:
92 <223> OTHER INFORMATION: Primer HH10VH_Hind_ba
94 <400> SEQUENCE: 6
95 tcaatctgat taagcttagt gatggtgatg gtgatgacat ccacctgcag agacagtgc      60
97 cagagt                                         66
100 <210> SEQ ID NO: 7
101 <211> LENGTH: 63
102 <212> TYPE: DNA
103 <213> ORGANISM: Artificial
105 <220> FEATURE:
106 <223> OTHER INFORMATION: Primer HH10VL_Eco_fo
108 <400> SEQUENCE: 7
109 tttcacacag aattcattaa agaggagaaa ttaactatgg atatttgct aactcagtct      60
111 cca                                         63
114 <210> SEQ ID NO: 8
115 <211> LENGTH: 69
116 <212> TYPE: DNA
117 <213> ORGANISM: Artificial
119 <220> FEATURE:
120 <223> OTHER INFORMATION: Primer HH10VL_Hind_ba
122 <400> SEQUENCE: 8
123 tcaatctgat taagcttagt gatggtgatg gtgatgacat ccacccttta tttccagctt      60
125 ggtccccccc                                         69
128 <210> SEQ ID NO: 9
129 <211> LENGTH: 48
130 <212> TYPE: DNA
131 <213> ORGANISM: Artificial
133 <220> FEATURE:
134 <223> OTHER INFORMATION: with 5' -thiol
136 <400> SEQUENCE: 9
137 ggagcttcgt aattctgtgt gctgcataat cgacacgaat tccgcagc
140 <210> SEQ ID NO: 10
141 <211> LENGTH: 48
142 <212> TYPE: DNA
143 <213> ORGANISM: Artificial

```

yes, but insufficient explanation of
Artificial Sequence
48 (give source
of genetic
material -
see item 11 on
Error Summary
Sheet)

RAW SEQUENCE LISTING DATE: 12/08/2005
 PATENT APPLICATION: US/10/507,140 TIME: 10:59:19

Input Set : E:\seq_listing.txt
 Output Set: N:\CRF4\12082005\J507140.raw

```

145 <220> FEATURE:
146 <223> OTHER INFORMATION: with 3' -thiol name emn
148 <400> SEQÜENCE: 10
149 tcgcgagggg aattcgtcat atatcagcac acagaattca gaagctcc 48
152 <210> SEQ ID NO: 11
153 <211> LENGTH: 48
154 <212> TYPE: DNA
155 <213> ORGANISM: Artificial
157 <220> FEATURE:
158 <223> OTHER INFORMATION: HyHello_5SH with 5'-thiol
160 <400> SEQUENCE: 11
161 ggagcttctg aattctgtgt gctgcagtgg cgacacgaat tccgcagc 48
164 <210> SEQ ID NO: 12
165 <211> LENGTH: 48
166 <212> TYPE: DNA
167 <213> ORGANISM: Artificial
169 <220> FEATURE:
170 <223> OTHER INFORMATION: Primer HyHello_3SH with 3'-thiol
172 <400> SEQUENCE: 12
173 tcgcgagggg aattcgtcat agggcagcac acagaattca gaagctcc 48
176 <210> SEQ ID NO: 13
177 <211> LENGTH: 48
178 <212> TYPE: DNA
179 <213> ORGANISM: Artificial
181 <220> FEATURE:
182 <223> OTHER INFORMATION: Primer GST_5SH with 5'-thiol
184 <400> SEQUENCE: 13
185 ggagcttctg aattctgtgt gctgctgagg cgacacgaat tccgcagc 48
188 <210> SEQ ID NO: 14
189 <211> LENGTH: 48
190 <212> TYPE: DNA
191 <213> ORGANISM: Artificial
193 <220> FEATURE:
194 <223> OTHER INFORMATION: Primer GST_3SH with 3'-thiol
196 <400> SEQUENCE: 14
197 tcgcgagggg aattcgtcaa gaggcagcac acagaattca gaagctcc 48
200 <210> SEQ ID NO: 15
201 <211> LENGTH: 24
202 <212> TYPE: DNA
203 <213> ORGANISM: Artificial
205 <220> FEATURE:
206 <223> OTHER INFORMATION: Primer 1AB_PCRfo
208 <400> SEQUENCE: 15
209 ggagcttctg aattctgtgt gctg 24
212 <210> SEQ ID NO: 16
213 <211> LENGTH: 18
214 <212> TYPE: DNA
215 <213> ORGANISM: Artificial
217 <220> FEATURE:

```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/507,140

DATE: 12/08/2005
TIME: 10:59:19

Input Set : E:\seq_listing.txt
Output Set: N:\CRF4\12082005\J507140.raw

```

218 <223> OTHER INFORMATION: Primer 1A_PCRba
220 <400> SEQUENCE: 16
221 gctgcggaat tcgtgtcg
224 <210> SEQ ID NO: 17
225 <211> LENGTH: 18
226 <212> TYPE: DNA
227 <213> ORGANISM: Artificial
229 <220> FEATURE:
230 <223> OTHER INFORMATION: Primer 1B_PCRba
232 <400> SEQUENCE: 17
233 tcgcgagggg aattcgtc
236 <210> SEQ ID NO: 18
237 <211> LENGTH: 39
238 <212> TYPE: DNA
239 <213> ORGANISM: Artificial
241 <220> FEATURE:
242 <223> OTHER INFORMATION: Primer typeB_oligo
244 <400> SEQUENCE: 18
245 gcataccgga attcccagca taatgatcg tatacgctgc
248 <210> SEQ ID NO: 19
249 <211> LENGTH: 63
250 <212> TYPE: DNA
251 <213> ORGANISM: Artificial
253 <220> FEATURE:
254 <223> OTHER INFORMATION: Primer typeA_oligo with spacer element;
257 <220> FEATURE:
W--> 258 <221> NAME/KEY: Spacer element
259 <222> LOCATION: (40)..(45)
261 <400> SEQUENCE: 19
262 cgtcagctcg aatttccat atatgcagcg atagcgatcd ddddddctggg aattccggta
264 tgc
267 <210> SEQ ID NO: 20
268 <211> LENGTH: 18
269 <212> TYPE: DNA
270 <213> ORGANISM: Artificial
272 <220> FEATURE:
273 <223> OTHER INFORMATION: Primer CodeABfo
275 <400> SEQUENCE: 20
276 gcataccgga attcccgag
279 <210> SEQ ID NO: 21
280 <211> LENGTH: 18
281 <212> TYPE: DNA
282 <213> ORGANISM: Artificial
284 <220> FEATURE:
285 <223> OTHER INFORMATION: Primer CodeABba
287 <400> SEQUENCE: 21
288 cgtcagctcg aatttcc
291 <210> SEQ ID NO: 22
292 <211> LENGTH: 29

```

Per Sequence Rule:

d is a, c, g, or t

"d" can only represent a or g or t;
use "n" instead and explain in
<220>-<223> section

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/507,140

DATE: 12/08/2005
TIME: 10:59:19

Input Set : E:\seq_listing.txt
Output Set: N:\CRF4\12082005\J507140.raw

293 <212> TYPE: DNA
 294 <213> ORGANISM: Artificial
 296 <220> FEATURE:
 297 <223> OTHER INFORMATION: Primer with 5' sequence specifically coding a member of a
 298 sublibrary; where n is a, c, g, or t
 301 <220> FEATURE:
 302 <221> NAME/KEY: misc_feature
 303 <222> LOCATION: (1)..(5)
 304 <223> OTHER INFORMATION: n is a, c, g, or t
 306 <400> SEQUENCE: 22
QL 307 nnnncagca cacagaattc agaagctcc 29
 310 <210> SEQ ID NO: 23
 311 <211> LENGTH: 29
 312 <212> TYPE: DNA
 313 <213> ORGANISM: Artificial
 315 <220> FEATURE:
 316 <223> OTHER INFORMATION: Primer with a 3' sequence specific for a member of a
 library;
 317 where n is a, c, g, or t
 320 <220> FEATURE:
 321 <221> NAME/KEY: misc_feature
 322 <222> LOCATION: (25)..(29)
 323 <223> OTHER INFORMATION: n is a, c, g, or t
 325 <400> SEQUENCE: 23
 W--> 326 ggagcttctg aattctgtgt gctgnnnnn 29
 329 <210> SEQ ID NO: 24
 330 <211> LENGTH: 24
 331 <212> TYPE: DNA
 332 <213> ORGANISM: Artificial
 334 <220> FEATURE:
 335 <223> OTHER INFORMATION: Primer with 5' sequence specific for a chemical moiety
 linked to
 336 primer by a biotinylated base analog
 338 <400> SEQUENCE: 24
 339 cagcacacag aattcagaag ctcc 24
 342 <210> SEQ ID NO: 25
 343 <211> LENGTH: 48
 344 <212> TYPE: DNA
 345 <213> ORGANISM: Artificial
 347 <220> FEATURE:
 348 <223> OTHER INFORMATION: Primer with 5' iminobiotinyl-NH-(CH₂)₆ group
 350 <400> SEQUENCE: 25
 351 ggagcttctg aattctgtgt gctgattggc cgacacgaat tccgcaggc 48
 354 <210> SEQ ID NO: 26
 355 <211> LENGTH: 48
 356 <212> TYPE: DNA
 357 <213> ORGANISM: Artificial
 359 <220> FEATURE:
 360 <223> OTHER INFORMATION: Primer with 3' (CH₂)₆-NH-iminobiotinyl group
 362 <400> SEQUENCE: 26
 363 tcgcgagggg aattcgtcat ttaccagcac acagaattca gaagctcc 48

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/507,140

DATE: 12/08/2005
TIME: 10:59:20

Input Set : E:\seq_listing.txt
Output Set: N:\CRF4\12082005\J507140.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:22; N Pos. 1,2,3,4,5

Seq#:23; N Pos. 25,26,27,28,29

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27

Seq#:28

VERIFICATION SUMMARY
PATENT APPLICATION: US/10/507,140

DATE: 12/08/2005
TIME: 10:59:20

Input Set : E:\seq_listing.txt
Output Set: N:\CRF4\12082005\J507140.raw

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:258 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:19
L:307 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0
L:326 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0